

Nutrition Network Concept Development and Testing for Fruit & Vegetable Consumption & Physical Activity

Results from Focus Groups

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Prepared for:

Ms. Trinet M. Beauchemin
California Nutrition Network for Healthy Active Families
California Department of Health Services
P.O. Box 942732, MS 65
Sacramento, CA 94234-7320

Executive Summary

Goals and Objectives

Twenty-four focus groups were conducted for the California Nutrition Network for Healthy, Active Families during September, October, and November, 1999, in San Diego, Los Angeles and Berkeley, California. The groups were conducted in two phases with twelve groups in each phase. Each phase consisted of three groups each with African American women; three with Spanish-dominant Latinas; and six with mixed groups of African American, Caucasian and English-dominant Latinas. Phase I focused on developing concepts for promoting fruit and vegetable consumption as well as physical activity. Phase II emphasized concept testing of potential advertisement for these two aspects of behavior among limited income women in California. Major findings are provided below.

Findings & Recommendations

Fruit and Vegetable Consumption. Women perceived themselves as consumers of fruits and vegetables although they also acknowledged that they do not eat enough. Also, although they knew that they should eat more, they did not appear to be confident as to the health benefits resulting from eating fruits and vegetables. Messages with information on the health benefits as well as tips for how to store and prepare them in a convenient way appear may be the best way to initiate change.

Physical Activity. All women perceived themselves to be physically active. Yet, in opening the discussion on physical activity, there was usually some comment that betrayed their sense of discomfort with what they actually do. Being physically active was closely linked to their daily responsibilities at home or at work. Walking was the most common activity they engage in, and it was undertaken primarily as part of the normal chores rather than as an action designed to keep them healthy.

Campaign Channels: The women mentioned a number of traditional channels for disseminating messages for eating fruits and vegetables as well as for physical activity. Aside from broadcast and print media vehicles, doctors, schools and grocery stores were consistently cited as appropriate settings for providing them with information. Pharmacies and clinics appeared to be important places for information dissemination especially for print and poster materials.

Existing Ads. The women had little recall of advertising for fruits and vegetables. They were more familiar with ads for physical activity although these tended to be placed in two categories: ads for gyms or ads for exercise videos or equipment. They reviewed six television ads from a number of different sources. Only the Tree Fruit Association ad was out-and-out rejected by most due to its sexual overtones. They especially liked the English-language Generations ad, the Restaurant ad and the DOT commercial. These provided easily understood messages and modeled behavior or provided tips to help them change their habits and those of their children. Suggested changes in the ads focused on having more relevant characters such as average-looking people from diverse backgrounds or situations relevant to them (playing basketball, soccer at the park).

New Concepts.

Women designed concepts for promoting fruit and vegetable consumption and for physical activity. Common elements in their concepts were as follows: 1) use of average persons; 2) a focus on change and results; 3) an emphasis on fun; and 4) a family orientation. Another important ingredient for the concepts was modeling behavior either in preparing foods or being physically active.

Of the new fruit and vegetable concepts, **no one concept was preferred** by all groups. They liked different elements of each concept though it appears that no one concept resonated strongly.

Of the new physical activity concepts, **the EKG concept** seemed to resonate with the women primarily because it made them think of making physical activity an urgent priority.

Cookbooks & Recipe Cards: Except for the lukewarm reaction to the idea of a California cookbook, all were very positive to the Down Home Healthy Cookbook, the Healthy Latino Recipes, Discover the Secret and the recipe cards. Suggested channels for getting these into their hands were through the mail, through grocery stores, newspapers, or doctors' offices.

Brochures & Flyers: The information in the Why Eat More Fruits and Vegetables brochure was viewed as important and something they would like to know. The PBH brochures, while found to be attractive, seemed to elicit a less enthusiastic response. The novela-format may have run its course, as few of the women responded positively to it noting that it would appeal more to children.

Of the three flyers presented, only the Soul Food Pyramid elicited a strong reaction. This may have been due to it being more colorful than the others. The California food pyramid attracted little attention while there was a lack of interest in the physical activity pyramid in the existing format.

Calendars: While the concept of a calendar received favorable responses, the women preferred those that offered recipes or tips on storage and preparation of

fruits and vegetables. They suggested that the calendars include pictures of produce in season or appetizing dishes.

The day planner, while an attractive idea, seemed to be less sought after than a calendar. In fact, women seemed to prefer a marker for a day planner over a day planner itself.

Posters & Billboards: The women liked the PBH posters especially those that had pictures of fruits and vegetables. They were cool to the Get Fit with 5 poster and rejected the Retail poster depicting carrots and the billboard with the identical picture. They viewed the former as not relevant to their situations and the latter two as unattractive and unappealing. Nutrition Network posters were found to have messages that were easy to understand although the convenience store poster and the transit ads were not as colorful as the women thought they could be.

The PBH mini-posters received many accolades for their colorful pictures and slogans. Given the positive response to the slogans, there may be no interest in replacing these with any of the new slogans tested in the groups.

Incentive Materials: The women liked the materials being utilized for incentives. They were especially fond of the aprons, magnets, potholders, water bottles and writing pads.

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Introduction

Purpose

The motivation to make and maintain changes in eating behavior is complex. This is especially the case as knowledge, attitudes and behavior, three factors important in making dietary changes, are intricately interrelated regarding issues of fruit and vegetable consumption and physical activity. Each plays a role in influencing action and patterns of action, and many times, there is difficulty discerning which sub-factors within these conceptual fields plays the most influential role given that the variables operate simultaneously. The Nutrition Network for Healthy Active Families (the Network) initiated a social marketing campaign targeting limited income women with messages on healthy eating and physical activity. The 1997 campaign was based on qualitative research that explored the women's lifestyles and the various contexts of decision-making, meal planning and the barriers to eating healthfully and engaging in physical activity. In 1998, the Network conducted follow-up research to develop new promotional strategies and advertising for healthy eating and physical activity messages to the target audience. In September, 1999, the Network contracted Mr. Regino Chávez to carry out twenty-four focus groups designed to test new concepts for a proposed Y2K follow-up campaign focused on promoting specifically fruit and vegetable consumption and physical activity.

Twelve (12) focus groups were carried out with limited income African American, Caucasian and Latina women who have children between the ages of 5 and 18 and who reside in families earning less than \$20,000 annually. The specific purpose of the research was as follows:

- To examine factors that would facilitate and serve as barriers to the consumption of fruits and vegetables and to engaging in physical activity;
- To explore the development of new message concepts for a Y2K campaign; and
- To identify appropriate places and activities for message dissemination.

A second round of twelve (12) additional focus groups was carried with the same target segments for the following purposes:

- To test new concept developed as a result of the research in Phase I;
- To explore reactions to the Network's 1998 and 1999 advertising ads, print materials, and other promotional materials developed for the campaign.

Focus groups are among the best methods for exploring concept development for advertising. When used with a trained and knowledgeable moderator, focus groups permit the researcher to collect data in a relatively short time frame from a purposive sample who meet the needs of the project. The method affords flexibility in exploring issues with a number of informants at once. For promotional concept development and testing, the method is ideal given that it permits exploration, discovery and understanding issues in depth and in context; thus, it provides a means for identifying how “things” are and how they got that way. However, findings from focus groups are not generalizable to the larger population. It is important to note that results of focus groups are intended to provide readers with an impression of issues relevant to the target group(s). Due to the small number of participants in the groups and the self-selection process for participation, the sample is not statistically representative of the target population. Focus group findings, then, provide insights into overall attitudes and trends and should not be interpreted as definitive and statistically significant.

Sample

Phase I of the research consisted of twelve focus groups conducted with limited income women to carry out the objectives of the study. Four groups were carried out in each of three sites: San Diego, Ca.; Los Angeles, Ca; and Berkeley, Ca. In each site, one group was conducted with a group of limited income African American women; one with Spanish-dominant Latinas; two groups were carried out in a setting included African American, Caucasian and English-dominant Latinas. One of the latter groups was with limited income women while the other included women who earned between \$25,000 to \$45,000. These groups concentrated on developing concepts for a new campaign. Phase II groups took place in the same cities with the same type of participants. Again, the structure of the groups was identical to those in Phase I. However, Phase II participants concentrated on reacting to new concepts for advertising of fruits and vegetables and physical activity. Appendix A includes a copy of the screener used in recruiting women for the groups. The various versions of the moderator’s guides are provided in Appendix B.

As the Network’s target segment is limited income women, a market segmentation strategy was developed based on several factors: a) gender; b) age; c) presence of children in the household within a selected age range; d) fruit and vegetable consumption behavior; e) physical activity behavior; f) ethnicity; g) marital status; and h) income. Existing population surveys pointed out that the majority of the limited income (< \$20,000) population is eating between 2 and 4 servings of fruit or vegetables daily. In addition, the majority is also getting some exercise (though not anywhere near the recommendation). Based on the findings of the survey, Network staff decided to target single parents among African American and Caucasian women and married or single Latinas in this research project. In addition, a screener was developed for recruiting and selecting only individuals who were open to

receiving messages about fruit and vegetable consumption and physical activity and also intended to eat more fruit and vegetables and to be more active. Targeting of participants in the contemplation, preparation and action stages of change with regard to fruit and vegetable consumption and physical activity was the most cost effective strategy given the two conceptual fields (fruit and vegetable consumption; physical activity) to be explored. Based on previous experience with the nature of discussions in mixed-ethnic versus ethnic-specific groups, managers decided to provide a separate group for the Spanish speaking Latinas and one for the African American women. This allowed these target segments to feel more comfortable sharing their experiences. Two mixed-ethnic groups at each site included African American, Caucasian and more acculturated Latinas. Finally, all participants had to be between the ages of 20 and 44 and had to have children between the ages of 5 and 17.

The women were recruited and screened utilizing the screener provided in Appendix A. Recruitment strategies included outreach at community recreation centers and bus stops, outreach at community-based institutions such as churches, clinics or through face-to-face appeals in supermarkets catering to the target audience and included potential participants in existing databases,. All participants were women who had at least one child, though most reported having between 2 and 3 children living at home. Children's ages ranged from a child who was one-month old to those with grown children. Appendix C provides a description of the groups in tabular form.

Findings

This section of the report presents general findings for all women who participated in the groups. Findings are organized by area examined and include the following:

- Fruit and Vegetable Consumption;
- Physical Activity behavior;
- Concept Development: Fruits and Vegetables;
- Reactions to Fruit and Vegetable Concepts;
- Concept Development: Physical Activity;
- Reactions to Physical Activity Concepts;
- Reactions to Television Advertisement;
- Reactions to Print Materials; and
- Reactions to Potential Incentive Materials.

Appendix B includes copies of the moderator's guides used throughout the process. The guides did change to accommodate changes in emphasis with respect to materials tested and changes in focus from the initial phase of the effort to the ending phase. The findings are presented at an aggregated level. Differences by ethnicity or by group are highlighted where appropriate.

Fruit and Vegetable Consumption

Women were asked about their fruit and vegetable consumption including why they eat fruits and vegetables as well as what keeps them from eating more. They were also asked what makes it easier for them to eat more fruits and vegetables.

In general, women reported that they consume anywhere from two to seven servings of fruits and vegetables per day. More reported eating 2 to 3 servings than the higher amounts. This was especially the case with African American women. In Phase 1 women were also asked how many servings for fruits and vegetables they should eat. Many indicated that people need to eat 5 to 7 servings daily. They indicated that they obtained information about fruits and vegetables from such sources as the Women, Infant and Children (WIC) program, schools, cereal boxes, books, magazines, doctors, and advertisements.

The women were asked to describe a woman who eats fruits and vegetables and one who does not. Among the typical characteristics ascribed to them were the following:

Fruit and Vegetable Eater	Non-Fruit and Vegetable Eater
<ul style="list-style-type: none"> ➤ Healthy ➤ Pretty skin ➤ Thin ➤ Energetic ➤ “Looks good for her age” ➤ Shops at Vons, Ralph’s, Trader Joe’s ➤ May be heavy ➤ Average looking: not overweight but not thin. “<i>Asi como nosotros (Like us).</i>” (Latina, Oakland) 	<ul style="list-style-type: none"> ➤ Tired ➤ Fat ➤ Spots on facial skin ➤ Nervous ➤ Irritable ➤ No energy ➤ Sickly ➤ Eats junk or fast food

Many of the women indicated that they were like neither extreme. Rather they characterized themselves as in the middle since they did eat some fruits and vegetables. The ‘in-between’ woman was a size 14 to 18; looks nice and exercises with her children.

Benefits and Barriers to Fruit and Vegetable Consumption

The women were also asked to identify the benefits to eating fruits and vegetables. Among those they mentioned most were that these food items were healthy as they provided nutrients like vitamins and minerals; they prevented disease; and they provide energy. Other benefits cited less frequently were that they improve digestion, they help one live longer, they improve one’s appearance (weight control; skin); they are low in fat, and they are economical.

When asked what keeps them from eating five servings daily, the women cited the following barriers:

- Time
- Convenience: No time or busy schedule, as “...[Fruits and vegetables] *require preparation.*” (Mid-Income, Oakland)
- Lack of habit as they were “...*not given as a child*” (Low, Los Angeles);
- Availability
- Taste: Women mentioned that taste was an especially important factor among children and spouses.
- Appearance: “*Just don’t look right*” (AA, Oakland)
- Junk food is more accessible
- Cost
- “Don’t fill up”
- Poor quality of produce
- Spoil easily.

Phase II women were asked to identify factors that would facilitate the consumption of fruits and vegetables. Among the ideas they provided as facilitators were the following:

- Improve availability: Women noted that work sites do not offer a selection of fruits and vegetables and “...*you get tired of apples and bananas*”.
- Facilitate access: Women mentioned that fruits and vegetables were more likely to be consumed if they made them easily accessible to children in the home.
- Note seasons: Several women noted that summer months afford a better and wider selection of fruits than winter ones.
- Preparation tips: Women reported that they could benefit from knowledge of different ways of preparing vegetables as this also contributes to “...*organizar y planear las comidas para la semana* [...organizing and planning the meals for the week]” (II, SD, Latina).
- Improve the quality of the produce: African American participants in particular mentioned that the produce available in markets in their neighborhoods were of very poor quality.
- Storage Tips: Women also mentioned that they could use tips on, “*how to keep them from not spoiling so fast*” (II, Berkeley, AA).
- Convenient packaging would make it easier to use fruits and vegetables in snacks and in making meals. Middle income women in San Diego noted that these packages existed but were “...*high priced*”.
- Price: African American women in particular mentioned lowering the price of produce as a means to promote consumption (Berkeley, San Diego, L.A.).
- Advertising the benefits and the variety of fruits and vegetables available.

Elements for a Fruit and Vegetable Ad

During Phase II, women were asked if they had seen advertisements promoting the consumption of fruits and vegetables. Except for the middle income, San Diego women, most of the other participants reported that they had seen few ads of that nature. The San Diego group indicated that they had seen ads on billboards, in magazines, in doctor’s offices and on buses. Other groups mentioned having seen ads for canned vegetables (Green Giant) or for Dole products. Several also noted that they had seen such ads while watching cartoons with their children.

During Phase I, women designed a campaign focused on persons like them who reside in California. The goal of the campaign was to get women to eat more fruits and vegetables. Appendix D includes copies of the concepts for advertising designed by the women. For the most part, the designs centered on getting information that would provide information on the benefits resulting from consuming fruits and vegetables. Of importance in most designs were the following elements:

- Results: The women wanted to see the consequences of eating fruits and vegetables. Among those cited more frequently were losing weight and improvements in a woman’s physical appearance.

- Use of Credible Persons: The women mentioned that they wanted to see women like themselves in the ads. They noted that most ads depicted slim characters to whom they could not relate. They preferred to see average-sized women of various ethnic groups.
- Change: In addition to results, the women also wanted to see some manifestation of change in any advertisements. Among those most frequently mentioned were depictions of change, phased in, and starting prior to the behavior change and showing the results after the change. One example they mentioned was showing a person having lost weight or slowly engaging in the actions desired of them. Similar to this, they sought to have contrasts in the ads. For example, contrasts they mentioned were the energy levels of an eater vs. non-eater; a person prior to eating fruits and vegetables then after adopting a regiment of consuming these; or the skin appearance of an eater vs. non-eater.
- Benefits: The women mentioned that benefits such as the idea that eating fruits and vegetables would help people “feel better” and get more energy were good to disseminate. Among other salient benefits mentioned by them were that people would be healthier and live longer. Changes in physical appearance, especially dress size were also mentioned. Another important benefit was the health message which incorporated such sub-themes as nutrition, good skin, weight management, and disease prevention.
- Family Orientation: The women wanted a family orientation to the ads noting that it was important to include children in the ads. Having children in the ads would serve to attract this sub-segment of the market and would facilitate their job of trying to get kids to eat healthfully. Also, the women stated that children influence their eating habits and that would be one way to get the message to them.
- Depicting Food: Finally, women wanted to see dishes prepared with fruits and vegetables, such as “...*healthy soul food*” or “...*salads*”. Another idea they mentioned was to show items such as a person eating an apple or people eating fruit.

Promotional Channels

As the table below presents, the women mentioned a wide array of outlets for any advertising of fruit and vegetable commercials. Among those channels that they viewed as appropriate for advertising were television, billboards, radio, the internet, schools, grocery stores and farmer’s markets. Other channels suggested included placing ads with the produce trucks or on vendors carts that criss-cross their neighborhoods, Laundromats, clinics, pharmacies, recreation centers,

women's shelters, workplaces, and video stores (Blockbuster). Churches were also mentioned as an appropriate place when probed. As can be seen in the table, the women tied information about how fruits and vegetables are economical to coupons. Tips on cooking, storage or selection was linked to print rather than broadcast channels.

Table 1. Appropriate Channels for Providing Information on Aspects of Fruits and Vegetables: Phase II

Groups	Information on Health Benefits	Information on Cooking, Selecting & Storage	Information on Other Benefits
LA, Low	Mailings; Schools; Market; Kid's magazine; Demonstrations in stores	Brochures; Market;	Machines with coupons; same channels as mentioned before.
LA, Latina	TV; flyers at market; Posters in market;	Pamphlet in market; WIC; Mailings	TV; newspapers
LA, AA	TV ads; radio ads; magazines; Side of buses; Billboards; Mail	Infomercials; Mail; Samples at Price Club	"Same things". Supermarket
LA, Middle	TV; radio;		
Berkeley, Low			
Berkeley, Latina	TV ad during cartoons; Schools; Story books	Community centers; Radio; Adult schools;	Radio & TV ads
Berkeley, AA	TV; Web; supermarkets; Show ads on videos; Schools serve more fruits to kids.	TV; Radio; Green grocer on radio;	Coupons with recipes; Magazines; TV; radio; Talk shows.
Berkeley, Middle	TV; Mail; Newspaper; Signs; Billboards;	Grocery store near produce; Coupons in the mail; Newspaper coupons;	Flyers through schools; Discussions; TV programs
SD, Low	"Basically, we know it". Monthly magazine;	How to use them; What is in season; Tip sheets	
SD, Latina			
SD, AA			
SD, Middle	Coupons; Internet; Magazine & Newspaper ads; Recipes;	At produce stand; Things you tear off; something to stick on the fridge;	Produce stand; produce department of grocery store;

Concept Testing for Fruits and Vegetables

Five concepts were tested during the course of Phase II. Women in San Diego and Berkeley were exposed to “Shapes”, “Home Movies” and “Cereal”. The four Los Angeles groups heard a revised version of the “Home Movies” concept and two new ones: “Count/Don’t Count” and “Attention”. The fact that not all groups saw or heard all concepts makes comparing them difficult. Copy for the concepts is included as Appendix F.

No one concept was preferred by the women in all the groups. In fact, preferences were scattered across all of the concepts. No majority of women in any of the groups expressed a preference for the Count/No Count concept. Also, more of the women in the Spanish-speaking Latina groups found Cereal appealing. When asked which concept they would find would be appropriate for motivating women to eat more fruits and vegetables, a similar pattern emerged with no one concept found to be more strongly motivating than any other.

Beyond these two observations, no other pattern emerges from the data. Below are rationales provided by the women for their preferred concepts.

Shapes: Preferred by more of the San Diego middle income women and the Spanish-speaking Latinas in Berkeley. Among the factors that they mentioned were its positive and simple message. They suggested that people be added to the ad.

Home Movies: Women mentioned that they liked the family ambience incorporated in the concept and could relate to the scene or to the mother character. They also liked the idea that it included children, that it speaks to mothers and that it made eating fruits and vegetables to be a fun event. Changes they recommended to the concept included adding more facts on the benefits of fruits and vegetables.

Cereal: Women mentioned that they liked the cute element in the concept and that it made them think about their children and their diets. They described the concept as realistic and easy to understand. Several noted that they could relate to the situation as it happened in their households. Several objected to the child playing with the food adding that it would give the children other ideas.

Count/Don’t Count: The women mentioned that they liked that this concept gave them information on what is healthy and what is not healthy food. They described the message as clear and easy to understand.

Attention: Women noted that this concept was eye catching and raised their curiosity with the blinking word as it opens. They liked that it provides ideas about which “...*foods are delicious and nutritious*” and that it mentions benefits to eating fruits and vegetables. Finally, they noted that it is geared toward adults.

Physical Activity

Women in all groups were asked to define physical activity, identify the types of activities they engage in, react to a definition of physical activity, and to discuss the benefits as well as barriers to physical activity. Of interest was that as the moderator signaled the change in topic to physical activity, a spontaneous, nervous laugh was heard in each group.

When asked if they engage in physical activity, almost all of the women mentioned that they do something that keeps them physically active. Walking was the most common type of activity they engage in; other activities they mentioned included conduct of household chores, chasing after their children, and the daily actions associated with carrying out their work responsibilities. Few women mentioned that they set aside time to engage in a disciplined, daily routine for 30 minutes. Among the words they used to define physical activity were “...*exercise*”, or “...*walking*”. One woman noted that physical activity is “...*anything for 15 minutes as long as you move*” (Mixed low, San Diego). A minority held the view that physical activity was an action that “...*gets the heart rate up*” (Mixed low, L.A.) or it involved “...*more than what you normally do*” (Mixed-Middle, L.A.).

When read a definition of physical activity, women concurred with the definition and noted that it was something that they did engage in on a daily basis. In Phase II, women were read the definition and asked whether they would call the action ‘physical activity’ or ‘exercise’. There was no consensus across all groups as to what to call the defined activity. The women in the groups tended to split with regard to what to call the action; generally, close to half wanted to call it physical activity and the rest referred to it as exercise. In those groups where there was consensus on the label, three groups (San Diego Latinas & Middle Income; Berkeley Latinas) preferred to call it ‘exercise’ while the L.A. mixed low income group favored calling it ‘physical activity’. Important to note was that once the definition was read, many women expressed a sense of relief noting that they do engage in physical activity given their constantly doing something. Among the activities they cited were walking, dancing, household chores, climbing stairs, playing with their children, and walking to and from bus stops. Several women in Phase I groups mentioned that 30 minutes was a realistic time frame although some mentioned that 30 to 40 minutes was a better goal. When read the definition, the general reaction was “*Everybody does that*” or “*Unconsciously, you do that*” (Middle Income, L.A.).

In Phase II, four statements specifying timeframes for engaging physical activity were explored to determine which seemed most acceptable to the women. The table below summarizes the preferred statement. Most women favored breaking the timeframe into more manageable periods, as can be seen below. Several noted that these time frames were “...more realistic” than the 30 minute one. Others mentioned that “*Nobody wants to take 30 minutes*” or that breaking the times would permit “...others to do it”.

In each group, though, at least one woman questioned the wisdom of making a change in the timeframe. One wondered whether the benefits would still apply if one did as little as 10 minutes of physical activity per period. Others mentioned that they preferred to do 30 minutes as “...it’s harder to find 10 minutes then 10 minutes then another 10 minutes” (II LA, middle). Still another mentioned that she preferred the 30 minutes at once and early in the morning as she was unlikely to do exercise “...once I’m up, getting dressed, do breakfast, take the kids to school, get home, do homework...” (II, SD, middle). One noted that she would do 30 minutes as “...I’m not gonna’ do it twice” (II, Berkeley, AA).

Table 2. Reactions to Acceptable Time Frame Statements: Phase II

Statement	Group											
	LA low	LA AA	LA Latina	LA Mid	Berk eley Low	Berk AA	Berk Lat	Berk Mid	SD Low	SD AA	SD Lat	SD Mid
10 min. of continuous exercise/3 times a day		6		3			10					conse nsus
15 min. of continuous exercise/2 times a day	2			4	Conse nsus	3		6	Conse nsus			
30 min. of continuous exercise a day	2	2	8	3		5		5			conse nsus	
30 min. of continuous PA a day	7									10		

Women in all groups mentioned that they do engage in physical activity. They stated that they walk everyday in doing their chores or at work.. The participants mentioned that they walk their kids to school; they walk to catch the bus; and they walk purely for exercise. Another physical activity the women reported that they engage in was chasing kids and doing housework. Other less commonly reported activities included bike riding, aerobics, and swimming. A minority of the women noted that they do go to a gym.

When asked about benefits of physical activity, the women mentioned a number of

Benefits of Physical Activity

- Improves appearance
- Health
- Energy
- Releases stress

benefits. Appendix E lists the benefits by group for Phase I of the research. The more common benefits mentioned across all groups are provided in the adjacent box.

Barriers to engaging in physical activity were time, children and having too many responsibilities. Several mentioned that lack of discipline is a barrier to engaging in physical activity. Several women mentioned that to engage in it, *“You just gotta’ make up in your mind to do it”* (II, LA, AA). Another stated it differently, *“...No tengo la disciplina aunque se que es importante [I don’t have the discipline even though I know it’s important]”* (II, SD, Latinas).

The women were asked what would facilitate their engaging in physical activity.

- Support: Common to most groups was the idea that getting a group of women to go out together was very motivating. A San Diego participant stated, *“I’d do it everyday if I had a bunch of friends to do it with”*.
- Fun: Another way to facilitate their engaging in physical activity was by making the idea fun. Several suggested that promoters of the concept *“...find some type of fun in it”* or *“...have it be more than just exercise- like dancing or hiking”* (II, Berkeley, Middle). One woman stated, *“I wouldn’t call it exercise. Exercise scares people away”* (II, Berkeley, low).
- Provide incentives, like discounts to gyms or for child care;
- Assist them in finding time to engage in physical activity; and
- Provide them with the information on the benefits of doing PA.

Campaign Channels

In Phase II, participants were asked to identify the various channels that could be used to provide them with information about selected topics on Physical Activity. The graphic below summarizes the women’s suggestions for channels appropriate for getting information to them. Traditional channels were mentioned overall as appropriate for distributing information about physical activity. Television ads, print ads and pamphlets were mentioned in almost all groups as appropriate channels. The internet was also frequently mentioned by all groups. Only the Berkeley African American group mentioned worksites as a possible place for receiving information.

Table 3. Appropriate Channels for Providing Information on Aspects of Physical Activity

Groups	Information on Benefits	Information on What to Do	Reminders
LA, Low	Mail; Ads; brochures; Newspaper ads; bulletin boards	Brochures, TV, School; Internet; doctors’ offices	
LA, Latina	Pamphlets, TV, classes, phone calls	Radio, Mail	Mail, TV,
LA, AA	Discounts or coupons; No need	No need	

Groups	Information on Benefits	Information on What to Do	Reminders
LA, Middle	TV; brochures, newspaper ads, Word of mouth; Internet		E-mail
Berkeley, Low	Doctors' offices; Grocery store by produce; have doctors address it with women.		
Berkeley, Latina	Videos; Pamphlets in schools; Mailings; TV programs; TV ads;		
Berkeley, AA	Web; TV; Radio; Schools, Worksite (discounts for gym)		
Berkeley, Middle	Brochures; Doctors' offices; Videos for women; Print ads;		
SD, Low	Show something graphic; No ads with skinny women	Show how to work it into the lunch break; Have community walks at the park;	
SD, Latina	TV; show pretty images & bodies;		No real response.
SD, AA	TV ads; Radio ads; magazine ads; Show during cartoon hours, soaps. Have on the beginnings of videos; E-mail	Use incentives; distribute through schools; have group activities;	Use magnets; water bottles; pens; pencils; wrist bands; sweat bands.
SD, Middle			

Elements for an Ad on Physical Activity

Participants in Phase I groups were asked to design a campaign to promote physical activity among women like themselves in California. Appendix ___ presents the ideas for each group. Among the key elements that the participants mentioned for any advertising were the following:

- Average persons: They want average-looking people in the ads. Many noted that most ads depict skinny or in-shape people. The women noted that they do not find the ads motivating as they cannot relate to the characters.
- Contrasts and Change: The women mentioned that they wanted contrasts such as before and after. Additionally, they sought to emphasize results, especially in showing changes in physical appearance such as weight loss. They also mentioned that they wanted to see the distinct phases to follow the change across time. They noted that ads that simply showed a before-after change

were not credible as these could be the result of trick photography such as one person's face on another's body.

- Family orientation: The women mentioned that they would like to see others like them in ads and that these include kids engaged in some physical activities with their families.
- Modeling: Women mentioned that they sought to look for information on what to do to be physically active. They mentioned that they wanted tips and information on what specific exercises would do for their body.
- Support: The participants also mentioned that they wanted to have a support network and found this very motivating in becoming and staying physically active.

Reactions to New Concepts for Physical Activity

Three new concepts were tested during the twelve focus groups that comprised Phase II. These concepts included “Dog”, “Home Movies” and “EKG”. As is evident in the exhibit in Appendix G, no one concept was preferred by all groups. “Dog” consisted of a dog excited by the prospect of being taken for a walk. “Home Movies” centered on old movies of a family at a park engaged in different types of games. “EKG” showed the lines of a monitor while an announcer spoke of the need to engage in physical activity. Copy for the concepts is presented in Appendix F.

More women in five groups preferred the **EKG** concept; women in three groups favored the Dog concept and those in another preferred the Home Movies concept. Two groups were evenly split between the Dog and EKG concepts and one was almost evenly split between Home Movies and EKG. There is no pattern as to the preferences either by ethnicity or income levels for the type of woman that preferred this concept.

When asked which concept would be most appropriate to motivate women to engage in physical activity, women in six groups favored the EKG concept given the seriousness and urgency of the message. In several groups, women noted that the concept “...*made you think*” of the message. Women who liked the EKG concept mentioned that the message was straight and to the point. They also liked the seriousness of the message and that the benefits of physical activity were addressed in the copy. One Latina added that the message was that “...*esta en las manos de uno mismo* [...] it's in one's own hands” (II, San Diego, Latinas). One group suggested that the announcer on this ad should be a female.

Those women who preferred the Dog concept mentioned that it was cute. They also noted that they liked the suggestions it provided for being physically active as well as the idea that the action was easy and fun and depicted a real-life situation. Latinas in Berkeley and Los Angeles mentioned that they did not necessarily like

the comparison to a dog. They linked the concept to the Taco Bell issue where a segment of Latinos initiated protests over those ads.

The Home Movies concept was preferred by the least amount of women. Among the features that women found attractive about this concept were its family orientation and that they could relate to the mother character in it. They liked the message that physical activity can be enjoyed by the entire family and that it can be a fun experience.

Review of Advertisements: Phase II

Women were asked whether they had seen any ads for physical activity. Most recalled having seen television commercials for gyms (Bally's), Jenny Craig, or the videos promoting a specific type of exercise (TaeBo) and exercise equipment. For the most part, they complained that the gym ads were "...*unrealistic*" given that most of the people shown were already in shape.

During Phase II, the women viewed a number of existing television commercials to explore their likes and dislikes in advertising. Among those viewed were Magician (Fall, 1997) and Generations (Fall, 1998), two Network TV ads; Restaurant and Jump Rope, two Women's 2000 campaign ads; a Fruit Tree association ad for peaches; NCI's Dot breast cancer ad; and a segment designed for TV news programs. More Spanish-dominant Latinas than participants in the English-speaking groups reported having seen the Network ads. General reactions to the ads are presented below.

Magician (Fall, 1997, English & Spanish). The participants generally liked the ad; they found it cute, humorous and mentioned that they picked out several tips on how to use frozen and canned items to make a meal go farther. Among the negatives were that the dish was unappetizing (Mixed, low, LA); that it was not what Black people do (AA, LA); and that it was not realistic (AA, LA; Middle income, Berkeley).

Generations (Fall, 1999) : All groups liked this ad with several describing it as "excellent" or "great". The women stated that the main character was realistic and appealing. They identified a number of tips for consuming fruits and vegetables. Women mentioned that they liked the suggestions for eating healthy made in the concept.

Generations Abuelita (Spanish only). Spanish-dominant Latina participants viewed this ad and liked the message. They mentioned that they liked the food items in the ad ("...*se me antojan* [I crave them]"), the tips the character offered for consuming produce, and enjoyed the humor.

Fruit Tree Association- Peaches: While there was much spontaneous laughter when viewing the ad, most women mentioned that they did not want their children seeing it. They noted that it was "*diferente* [different]" and identified one message

of the ad as using brown bags to ripen fruit. Others noted that the ad made eating fruit a fun experience. However, in almost all groups, the women objected to the sexual nature of the commercial.

Restaurant: The women were very positive about this ad, noting that it gave out a good message about asking for substitutes. The women were then asked if they would find a scenario of a women asking for substitutes at a fast food restaurant credible, a few responded positively. Others mentioned that though it was a good idea and some had even engaged in that action, the cost of the meals at fast food restaurants became prohibitive with substitutes. According to them, fast food restaurants have extra charges for substituting items in meals. One woman view of fast food outlets was that of a reward for her children; she stated that since it was an incentive for her children , they are permitted to order whatever they wish.

Jump Rope: Except for the middle-income San Diego group, most of the other groups liked this ad noting that they liked the adult and child presence. They mentioned that the salad looked very appealing and the message was clear and simple. Three different groups mentioned, though, that they would like to see a heavier woman in the ad.

Graham Kerr Cooking Spot: Most women liked the idea of a spot on a news program that provided tips on preparation, selection or storage of fruits and vegetables. However, they reacted negatively to the clips they viewed. They found the main chef's voice boring and the presentation unappealing. They added that they would prefer to see tips on meals rather than baking apples.

Dot – Breast Cancer: All groups found the spot very catchy. They described it as “*very powerful and scary*” and as “*...that would get my attention*”. One mentioned that the use of an older woman's voice might not reach the younger women while another noted that while the ad might be severe, some people needed that approach. All agreed that the serious approach such as depicted in this ad would work for ads on physical activity.

Dan Jensen and Physical Activity: The women in most groups liked the concept and the message of the ad. They noted that it showed the simple things one can do to be physically active. They liked the family orientation and the father and daughter interaction. Some objections to the ad included that it was boring, that the scene was not realistic as they were not familiar with fathers who interacted with their children; or that it needed to have average looking people in the ad. Additionally, in both groups, women sought to have other activities depicted like BBQ or families playing sports.

Reactions to Materials

The women in Phase II were shown a number of items including posters, cookbooks, brochures, and mini-posters to explore reactions to the various items.

Cookbooks & Recipe Cards

Down Home Healthy Cookbook: All found the cookbook appealing. Several African American participants sought to get copies of the cookbook through the group. Women in several groups mentioned that they would try recipes from the book. When asked how they would like to receive it, women mentioned that it could be made available through the mail or in supermarkets. Other ways to obtain the book that were mentioned included calling an 800 number; through radio ads; or by sending it home from school with the children.

Healthy Latino Recipes: Participants described this cookbook as “*colorful*”, “*very nice*” and as having a variety of dishes. They mentioned that they would use it as they already cook various dishes mentioned in the book. Among the places they mentioned that they could get this book were doctors’ offices, newspapers and pharmacies.

Discover the Secret: Again, respondents reacted positively to this cookbook and identified potential distribution channels as grocery stores (produce section), doctors’ offices, high schools, and Sunday editions of local newspapers. One did suggest that an address be included where people could send a self-addressed stamped envelope to request the cookbook.

California Cookbook: While the idea appealed to many of the participants, several were confused by what dishes might be included in such a cookbook. The consensus was that the concept was good and that it should include dishes from the various ethnic groups in the state. Several different groups suggested a title for the book such as “The Healthy Melting Pot”.

Recipe Cards: The women were shown recipe cards with information about fruits, how to select them and how to prepare them. All liked the idea of the cards and many indicated that they had picked up cards like these at grocery stores. They suggested that providers of the cards think about a strategy for keeping the cards organized such as also providing recipe boxes for storing the cards. Women suggested having the cards at the produce section of grocery stores, at the registers or being handed out by a person doing demonstrations at stores.

Brochures & Flyers

Why Eat Fruits and Vegetables: Women in the groups mentioned that they liked the information provided in this brochure. When asked specifically if they knew of ‘phytochemicals’, no one indicated familiarity with the term. When the term was defined, women reacted positively and indicated that they would like to have this type of information on fruits and vegetables to “...*learn which ones stop diseases*” (II, LA, AA). They mentioned that schools, doctor’s offices, pharmacies and churches were appropriate places to distribute this pamphlet. Others suggested that it be tied to the Discover the Secret cookbook. Finally, Berkeley participants

suggested that a packet of materials be put together for door-to-door dissemination.

Produce for Better Health Brochures: Three brochures were demonstrated in the focus groups. There were mixed reactions to the brochures with African American women in Berkeley and Latinas in San Diego and the low-income mixed ethnic group in Los Angeles rejecting the brochures as unattractive and providing too much information that they did not know how they would use. Positive reactions were provided by the middle income women in San Diego who found the pictures in the 5 A Day Challenge brochure “nice” and characterized the 5 a Day My Way brochure as “great”. Overall, there was no overwhelming response to these brochures. Participants suggested that these be a series of materials either mailed to them or made available in doctors’ offices or pharmacies.

Ponte al Corriente: This pamphlet in a soap-opera format was viewed as appropriate for children. Only one group of Spanish-speaking Latinas liked the format. One Latina in a mixed ethnic group mentioned that it would appropriate for some of her family members adding, “*I’m Spanish; it’s like a novela. They buy the novela on Mission Street.*”

Soul Food Pyramid: Participants were asked about their receptivity to a soul food pyramid. While they were familiar with the concept of pyramids, most were not enthusiastic about the idea of such a flyer.

California Cuisine Pyramid: This flyer was characterized as boring and several mentioned that they would probably throw it away. Few had heard of taste enhancers as mentioned in here. Only the Berkeley middle-income group mentioned that they liked this idea.

Physical Activity Pyramid: Women were also shown a physical activity pyramid that mentioned the types of actions that could be undertaken to stay active. Most did not like the format of the material. They suggested that it be altered recommending that it be used instead as magnets, on the inside front cover of an organizer, or in the phone book.

Calendars

Project LEAN Calendar: Several groups spontaneously mentioned the idea of having calendars as reminders for eating healthy. Most groups were shown the Project LEAN calendar. The majority of women in all groups liked the idea of a calendar and suggested changes to the one shown. Included among the recommendations were that there be sufficient spacing to allow for writing notes; that the calendar include recipes; that it have pictures of fruits or vegetables that are in season or pictures of healthy dishes; and that it be more colorful.

Day Planner: Many of the women indicated that they use a planner. They liked the idea of a planner that was smaller than those shown in the groups. They also

mentioned that the planner could have small pictures as reminders for either fruit and vegetable consumption or for engaging in physical activity. Another idea mentioned was that of having a marker to put in an existing planner that could serve as a reminder for either of the two behaviors sought.

Posters & Billboards

Network Transit Ads: Where time permitted, the women were shown the Network Transit Ads. Generally, several in Los Angeles and Berkeley mentioned that they had seen the ad on buses. They liked the messages and slogans, but generally mentioned that the poster needed more colorful images. The women suggested that these materials be used as billboards, on buses, at bus stops, or on grocery carts. The Berkeley women suggested that it be used on BART as well.

Produce for Better Health Posters: The women reacted positively to the 5 A Day poster as well as the Challenge posters noting “...*that looks good*”. They liked the pictures of fruits and vegetables although some did suggest that more familiar fruits and vegetables be included. Some suggested changes mentioned were that the Get Fit with 5 poster needed to show either different types of activities or different people to make it relevant to them (soccer; diverse characters; younger people) as well as explain what is meant by ‘5’. They mentioned that they could see these posters at salad bars, as billboards or in doctors’ offices.

Produce for Better Health Mini-Posters: The women reacted very positively to the pictures and existing slogans on these materials. They liked the colors and the produce shown in the pictures and felt there was no need to include people in these ads. When probed for changes in slogans, most sought to keep the existing slogans on the posters. Of the new slogans tested, no one slogan was favored across all groups although Fit it In was closely linked to diet while Just Add was too confusing. Women mentioned that they could see these as billboards, on grocery carts, as larger posters and as posters on buses.

Table 3. Slogans for Mini-Posters

Groups	Fit it In. Siempre a tu Alcance.	Just Add__ Simplemente Agrégale__	Step up to the Plate. Atrévete	Other
LA, Low	No	4	2	Best if leave originals
LA, Latina	3	1	6	
LA, AA	No	No	No	Most: Leave originals
LA, Middle	No	No	No	Like originals
Berkeley, Low	Maybe	No	No	Leave originals
Berkeley, Latina	7	5	1	
Berkeley, AA	Not much reaction	Preferred	No	Not much reaction
Berkeley, Middle	Positive	Confusing	No response	
SD, Low	No reaction	No reaction	Preferred	
SD, Latina				
SD, AA	Positive			Prefer originals
SD, Middle	Preferred	No	No	

Carrots Retail Poster: Women mentioned that they found this poster too boring as it needed more fruits and vegetables on it.

Carrots Billboard: As with the Carrot poster, the women indicated that this billboard picture needed a greater variety of fruits and vegetables. Several suggested that the PBH Mini-posters be used as a billboard instead.

Food, Family & Fun Poster: A few groups were shown this Network poster and diverse reactions were noted. Several groups liked the poster for the diversity and “inclusive” nature of the poster and its colorful aspect. Other women rejected it mentioning that they did not like that there were “...*no chunky people in it*” and no diversity. Among the places they would like to see this poster were on web sites.

Convenience Store Poster: Where time permitted, some groups were able to see a Network poster used to advertise the variety of ways for consuming fruits and vegetables. In general, they liked the poster and identified the message although women did suggest that it needed more color. Among the places they suggested the poster could be located were at the entrance to stores.

Incentive Material

The women were shown a number of collateral materials to assess which would be most effective as reminders to eat fruits and vegetables or to engage in physical activity. Appendix G presents an exhibit of the materials.

Across most groups, the items the women liked most were the following:

- Magnets
- Aprons
- Potholders
- Water bottle
- Writing pad

When probed specifically for their reactions to the Dynabands, the women were not familiar with them. Once the concept was explained, they liked the idea and mentioned that they would use these at least to start their physical activity regimen.

Conclusions

General Conclusions

The Nutrition Network for Healthy Active Families' social marketing effort focuses on changing food and eating behaviors among selected segments of the residents of California. Twenty four focus groups were carried out to explore eating behavior, physical activity practices and the acceptance of new concepts for promoting fruit and vegetable consumption and physical activity among limited income women in San Diego, Los Angeles and Berkeley, California. The goal of the research was to identify concepts that will contribute to a change in eating behavior among limited income women residing in the state.

As evident in the discussions, food selection and consumption is shaped by a number of variables including knowledge, attitudes, personal preferences, culture, cost of food, and convenience, to name a few. The relative importance of each of these factors in influencing a change in eating behavior is difficult to predict as was evident in the various benefits and barriers that the women cited to both of the behavioral goals. While adamant that they know that they should eat fruits and vegetables or engage in physical activity, it was evident that knowledge about why to change or what to do was still a barrier as were attitudes. They also believe themselves to be eating some fruits and vegetables although they readily acknowledge that they could eat more and sought tips for how to do that, to improve their ability to engage in the behavior (self-efficacy).

Barriers to fruit and vegetable consumption can be easily classified into four categories:

- Environmental: Perception of cost; Availability of produce, Wastage due to spoiling and quality of the produce; accessibility of junk food;
- Food Related: Taste; Texture, especially for canned and frozen fruits and vegetables; Appearance;
- Personal Factors: Skill in preparing tasty recipes; Convenience or lack of time for preparation; lack of knowledge of the benefits.
- Social/Psychological: Culture and traditions especially as they relate to experiences with food as a child; Parent's role as manager & nurturer especially if produce is perceived as not being filling; Difficulty in changing behavior

Facilitators to fruit and vegetable consumption all centered on relieving the stresses caused by the barriers. That is the women suggested that fruits and vegetables availability could be improved through better produce at the markets

close to their homes, lowering the price, improving the quality and providing tips on preparing and storing and making them more convenient to use.

Elements for new advertising concepts centered more on the personal factors especially on depicting results and benefits of eating fruits and vegetables. Favored elements in the concepts tested included the tips that showed the women what to do with the produce, that characterized eating produce as a fun event and that had easily decipherable messages. Another common element was the use of a family ambience in the concept. It appears that the women find it just as important that their children learn to eat fruits and vegetables.

With regard to physical activity, though, the women were steadfast in their belief that they are physically active. The definition read to them reinforced this belief and seemed to ease their anxiety about whether or not they are doing enough. The issue for them is being disciplined, finding the time or the strategy (support network) for establishing and maintaining a routine that will afford them 30 minutes a day for their activity.

The dominant factors that influenced physical activity appeared to be identifying practical, convenient forms of physical activity and identifying creative ways to incorporate it into a daily routine. The women appeared to understand the value of physical activity (energy and improving their appearance). However, contextual factors were prominent in developing or maintaining a routine (time, kids, work or daily chores). Facilitators for engaging in physical activity appeared to be tied to enjoyable (fun), practical (time) and convenient modes as well as with the development of adequate social support to ease the building of a routine.

Specific Conclusions

Fruit and Vegetable Consumption. Women perceived themselves as consumers of fruits and vegetables although they also acknowledged that they do not eat enough. Also, although they knew that they should eat more, they did not appear to be confident as to the health benefits resulting from eating fruits and vegetables. Messages with information on the health benefits as well as tips for how to store and prepare them in a convenient way appear may be the best way to initiate change.

Physical Activity. All women perceived themselves to be physically active. Yet, in opening the discussion on physical activity, there was usually some comment that betrayed their sense of discomfort with what they actually do. Being physically active was closely linked to their daily responsibilities at home or at work. Walking was the most common activity they engage in, and it was undertaken primarily as part of the normal chores rather than as an action designed to keep them healthy.

Campaign Channels: The women mentioned a number of traditional channels for disseminating messages for eating fruits and vegetables as well as for physical activity. Aside from broadcast and print media vehicles, doctors, schools and grocery stores were consistently cited as appropriate settings for providing them with information. Pharmacies and clinics appeared to be important places for information dissemination especially for print and poster materials.

Existing Ads. The women had little recall of advertising for fruits and vegetables. They were more familiar with ads for physical activity although these tended to be placed in two categories: ads for gyms or ads for exercise videos or equipment. They reviewed six television ads from a number of different sources. Only the Tree Fruit Association ad was out-and-out rejected by most due to its sexual overtones. They especially liked the English-language Generations ad, the Restaurant ad and the DOT commercial. These provided easily understood messages and modeled behavior or provided tips to help them change their habits and those of their children. Suggested changes in the ads focused on having more relevant characters such as average-looking people from diverse backgrounds or situations relevant to them (playing basketball, soccer at the park).

New Concepts

Women designed concepts for promoting fruit and vegetable consumption and for physical activity. Common elements in their concepts were as follows: 1) use of average persons; 2) a focus on change and results; 3) an emphasis on fun; and 4) a family orientation. Another important ingredient for the concepts was modeling behavior either in preparing foods or being physically active.

Of the new fruit and vegetable concepts, **no one concept was preferred** by all groups. They liked different elements of each concept though it appears that no one concept resonated strongly.

Of the new physical activity concepts, **the EKG concept** seemed to resonate with the women primarily because it made them think of making physical activity an urgent priority.

Materials and Incentives

Cookbooks & Recipe Cards: Except for the lukewarm reaction to the idea of a California cookbook, all were very positive to the Down Home Healthy Cookbook, the Healthy Latino Recipes, Discover the Secret and the recipe cards. Suggested channels for getting these into their hands were through the mail, through grocery stores, newspapers, or doctors' offices.

Brochures & Flyers: The information in the Why Eat More Fruits and Vegetables brochure was viewed as important and something they would like to know. The PBH brochures, while found to be attractive, seemed to elicit a less enthusiastic

response. The novela-format may have run its course, as few of the women responded positively to it noting that it would appeal more to children.

Of the three flyers presented, only the Soul Food Pyramid elicited a strong reaction. This may have been due to it being more colorful than the others. The California food pyramid attracted little attention while there was a lack of interest in the physical activity pyramid in the existing format.

Calendars: While the concept of a calendar received favorable responses, the women preferred those that offered recipes or tips on storage and preparation of fruits and vegetables. They suggested that the calendars include pictures of produce in season or appetizing dishes.

The day planner, while an attractive idea, seemed to be less sought after than a calendar. In fact, women seemed to prefer a marker for a day planner over a day planner itself.

Posters & Billboards: The women liked the PBH posters especially those that had pictures of fruits and vegetables. They were cool to the Get Fit with 5 poster and rejected the Retail poster depicting carrots and the billboard with the identical picture. They viewed the former as not relevant to their situations and the latter two as unattractive and unappealing. Nutrition Network posters were found to have messages that were easy to understand although the convenience store poster and the transit ads were not as colorful as the women thought they could be.

The PBH mini-posters received many accolades for their colorful pictures and slogans. Given the positive response to the slogans, there may be no interest in replacing these with any of the new slogans tested in the groups.

Incentive Materials: The women liked the materials being utilized for incentives. They were especially fond of the aprons, magnets, potholders, water bottles and writing pads.